DRILL HOLES

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BORDER REV: DATE: July 1, 2005

BY: $USERNAME$

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 925 (OLD WASHINGTON ROAD) AND SMALLWOOD DRIVE IN CHARLES COUNTY, MARYLAND. MD 925 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

A MD 925 NORTHBOUND LEFT TURN PHASE HAS BEEN ADDED ALONG WITH PEDESTRIAN PHASES FOR THE WEST AND SOUTH LEGS.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 925 (OLD WASHINGTON ROAD) AND SMALLWOOD DRIVE - WEST LEG
STREETS AT 90 DEGREES
WAIT: "WAIT TO CROSS SMALLWOOD AT OLD WASHINGTON, WAIT." *
WALK: RAPID TICK
MD 925 (OLD WASHINGTON ROAD) AND SMALLWOOD DRIVE - SOUTH LEG
STREETS AT 90 DEGREES
WAIT: "WAIT TO CROSS OLD WASHINGTON AT SMALLWOOD, WAIT." *
WALK: RAPID TICK
* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC
NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL (TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS), VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.02-02 (SHOULDER WORK)
STANDARD NO. MD-104.03-06 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.04-02 (SHOULDER WORK)
STANDARD NO. MD-104.04-14 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-16 (INTERSECTION LEFT LANE, TURN BAY)

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA SIGNAL SHOP SHALL REMOVE CONTROLLER AND CONTROLLER SHALL BECOME THE PROPERTY OF SHA.
ALL ADDITIONAL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

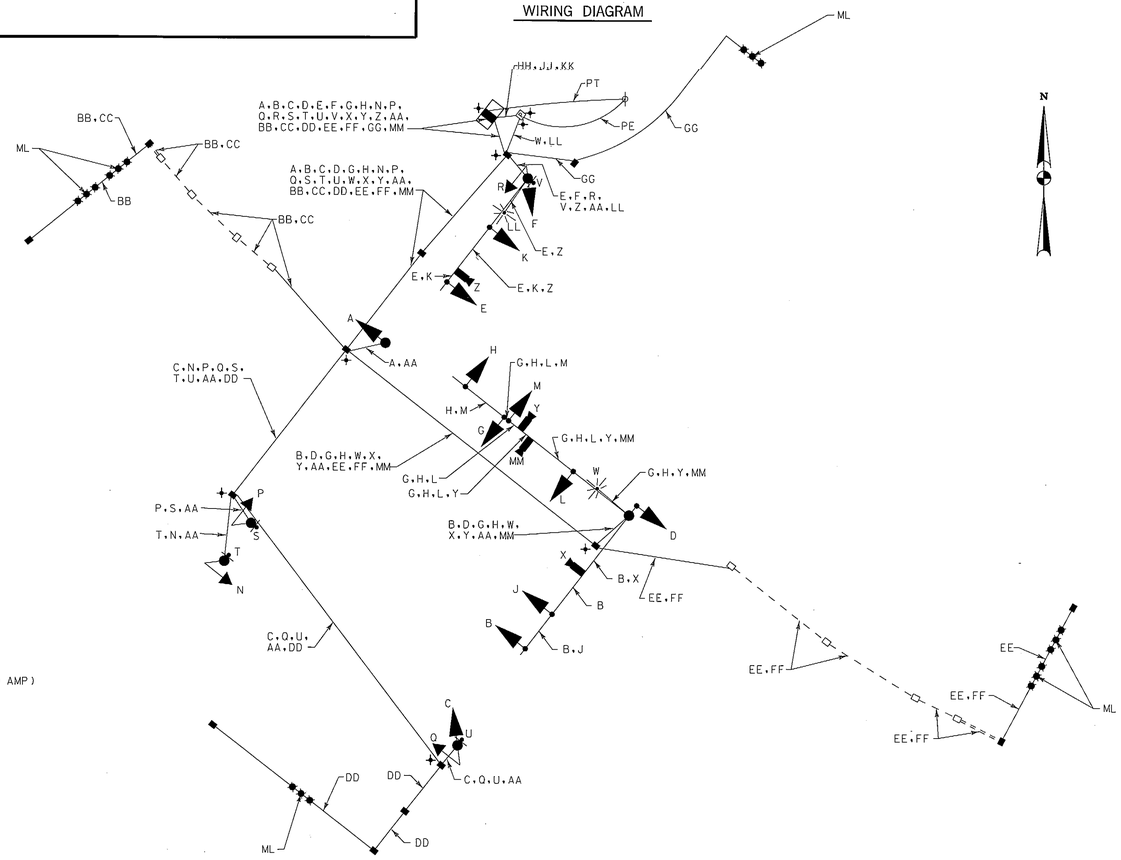
MR. JOE GECKLE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. MIKE HUBER
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

MR. ROBERT SNYDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631

MR. AVIJIT MAJI
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-5881

WIRING DIAGRAM



WIRING KEY

A, B, C, D, E, F, G, H — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

J, K, L, M, N, P, Q, R — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

S, T, U, V — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

W, LL — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE

X, Y, Z, MM — VIDEO CAMERA DETECTION LEAD-IN CABLE

AA — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

BB, CC, DD — EE, FF, GG — MICROLOOP PROBE LEAD-IN

HH, JJ, KK — 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)

ML - MICROLOOP PROBE SET
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
+ - 3/4 IN. X 10 FT. GROUND ROD
P - EMBEDDED METERED SERVICE PEDESTAL (100 AMP)

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE	QUANTITY	DESCRIPTION
114280	255 L.F.	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH
203030	7 C.Y.	TEST PIT EXCAVATION
585621	335 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	145 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
800000	1 EACH	REMOVE & DISPOSE MAT & EQUIP PER ASSIGN
801004	11 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
801104	60 L.F.	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
801106	17 L.F.	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	99 S.F.	SHEET ALUMINUM SIGNS
805115	65 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805118	315 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	55 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	415 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	110 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805160	5 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807500	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
810022	65 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
810550	1 EACH	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
810605	5 EACH	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	14 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
818004	2 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
818010	2 EACH	14 FOOT BREAKAWAY PEDESTAL POLE
818030	1 EACH	STEEL POLE WITH A SINGLE 38 FOOT MAST ARM
818050	1 EACH	STEEL POLE WITH TWIN 50 FOOT AND 60 FOOT MAST ARMS
832020	455 L.F.	BARE COPPER GROUND WIRE, NO 6 AWG
837001	8 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860270	6 EACH	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860284	46 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860292	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	670 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	770 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1660 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	325 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862102	275 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
865201	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGN
866103	2 EACH	15 FT. LIGHTING ARM ON SIGNAL STRUCTURE
800000	1 EACH	CONTROLLER AND CABINET - BASE MOUNT (FOUR CHANNEL, TIME DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER, EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "S" BASE MOUNT CABINET AND VIDEO INTERFACE EQUIPMENT 1-8 CAMERAS)
800000	1 EACH	2 WIRE CENTRAL CONTROL UNIT
800000	4 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
800000	4 EACH	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
800000	2 EACH	280 WATT LED LAMP AND LUMINAIRE

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
PHASE 1 AND 5	R/G	R	R/G	R/G	R	R/G	R	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
1 AND 5 CHANGE	PHASE 1+5 MAY CHANGE TO PHASE 1+6, PHASE 2+5 OR PHASE 2+6																		
PHASE 1 AND 6	G/G	G	G/G	R	R	R	R	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
1 AND 6 CHANGE	G/Y	G	G/Y	R	R	R	R	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 5	R	R	R	G/G	G	G/G	R	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
2 AND 5 CHANGE	R	R	R	G/Y	G	G/Y	R	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	FL/Y	FL/Y	R	R	R	WK	WK	DW	DW	
PED CLEARANCE	G	G	G	G	G	G	R	R	R	FL/Y	FL/Y	R	R	R	FLDW	FLDW	DW	DW	
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
PHASE 3 AND 7	R	R	R	R	R	R/G	R/G	R	R	FL/Y	FL/Y	R/G	R/G	R	DW	DW	DW	DW	
3 AND 7 CHANGE	PHASE 3+7 MAY CHANGE TO PHASE 3+8, PHASE 4+7 OR PHASE 4+8																		
PHASE 3 AND 8	R	R	R	R	R	R	R	R	R	FL/Y	FL/Y	G/G	G/G	G	DW	DW	DW	DW	
3 AND 8 CHANGE	R	R	R	R	R	R	R	R	R	FL/Y	FL/Y	G/Y	G/Y	G	DW	DW	DW	DW	
PHASE 4 AND 7	R	R	R	R	R	R/G	R/G	R	R	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
4 AND 7 CHANGE	R	R	R	R	R	G/Y	G/Y	G	G	FL/Y	FL/Y	R	R	R	DW	DW	DW	DW	
PHASE 4 AND 8	R	R	R	R	R	G	G	G	G	FL/Y	FL/Y	G	G	G	DW	DW	DW	DW	
4 AND 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	FL/Y	FL/Y	Y	Y	Y	DW	DW	DW	DW	
PHASE 4 ALT AND 8	R	R	R	R	R	G	G	G	G	FL/Y	FL/Y	G	G	G	DW	DW	WK	WK	
PED CLEARANCE	R	R	R	R	R	G	G	G	G	FL/Y	FL/Y	G	G	G	DW	DW	FLDW	FLDW	
4 ALT AND 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	FL/Y	FL/Y	Y	Y	Y	DW	DW	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 925 (OLD WASHINGTON ROAD) AND SMALLWOOD DRIVE
WALDORF, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE AUGUST 2012 CONTRACT NO. T-1038-0140

DESIGNED BY L.WAESCHE
DRAWN BY L.WAESCHE
CHECKED BY N.LEARY
F.A.P. NO.

COUNTY CHARLES
LOGMILE 08092501.24
TIMS NO. L760
TOD NO.

TS NO. 1036 E | DRAWING TSP-3 OF 3 | SHEET NO. 59 OF 59

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

13488 License No. 6/14/15 Expiration Date

WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

PLOTTED: $DATETIME$
FILE: $FILE$